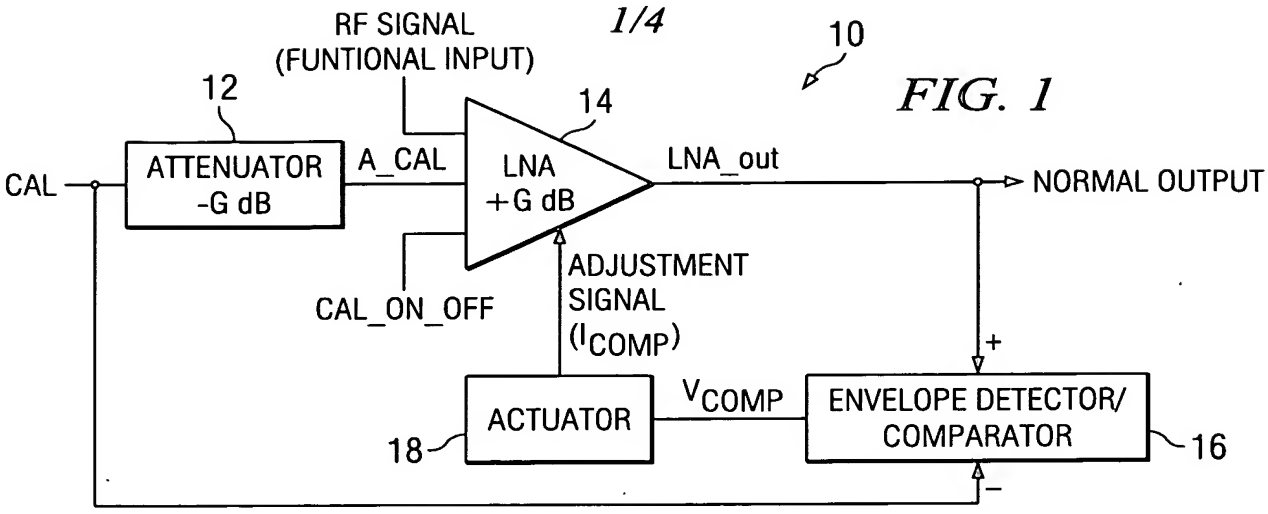


FIG. 1

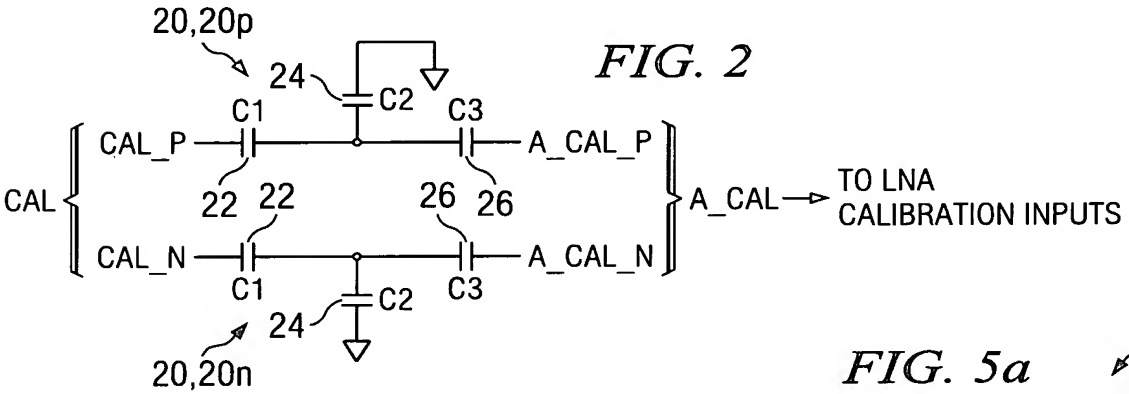


FIG. 2

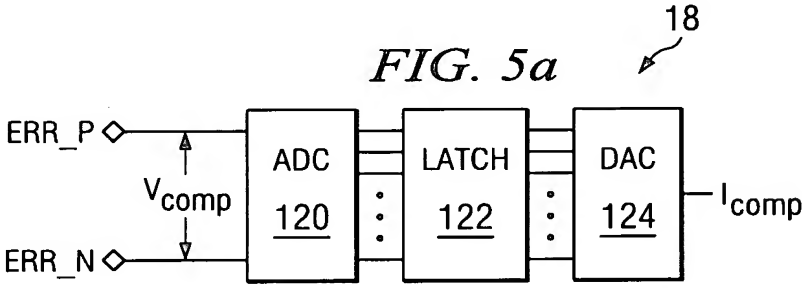


FIG. 5a

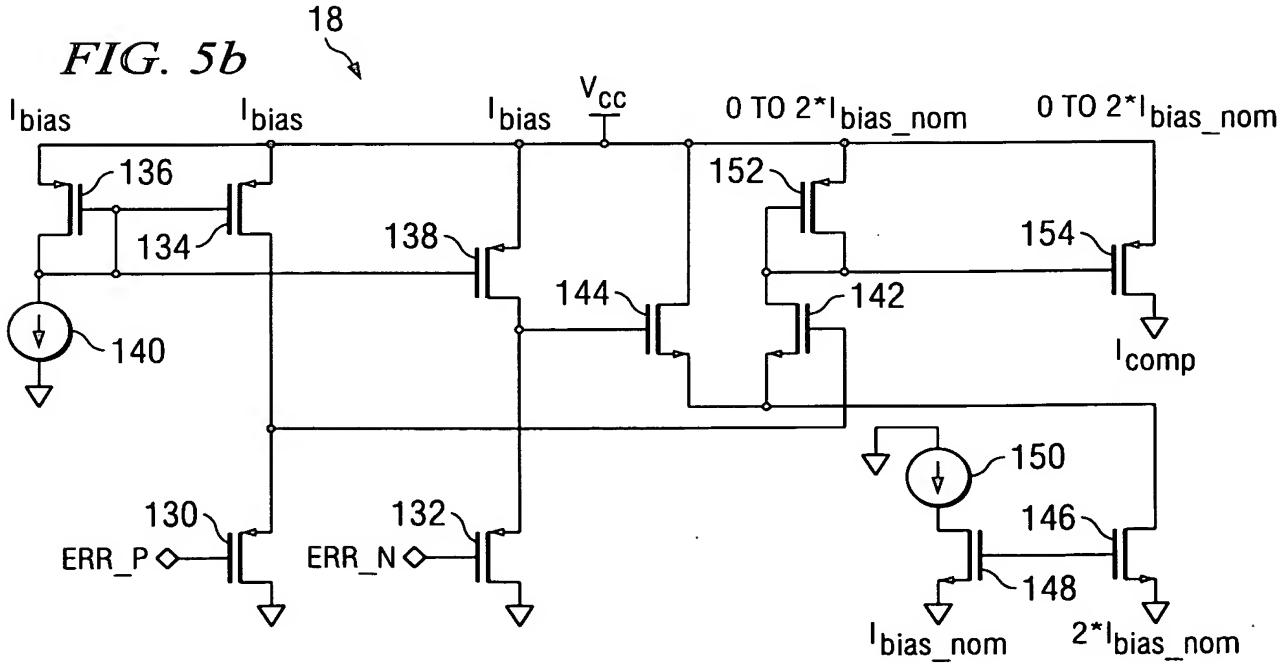


FIG. 5b

FIG. 3a

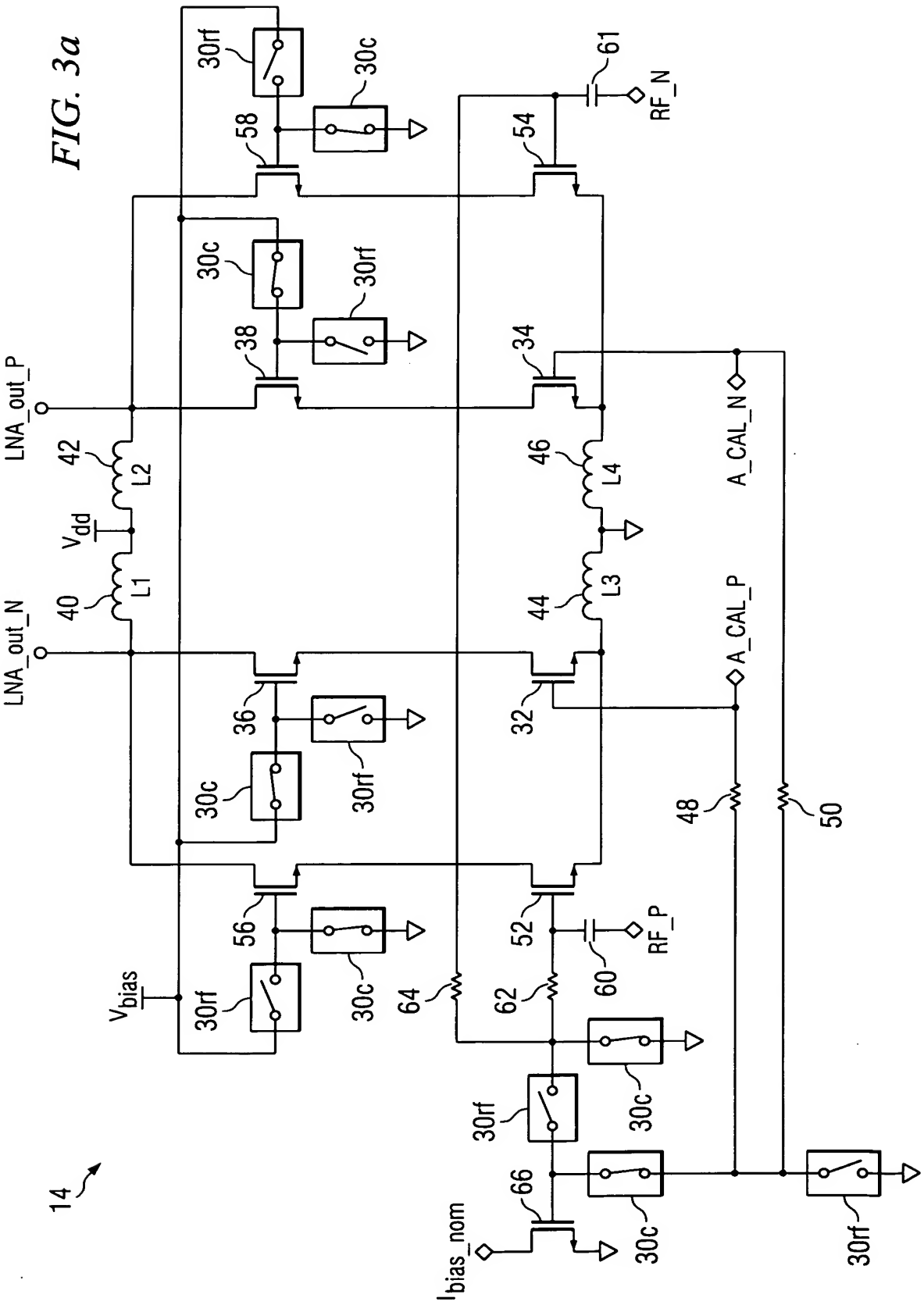

14
LNA_out_P
LNA_out_N
V_{dd}
V_{bias}
I_{bias_nom}
RF_N
RF_P
A_CAL_N
A_CAL_P
L1
L2
L3
L4
30rf
30c
32
34
36
38
40
42
44
46
48
50
52
54
56
58
60
61
62
64
66

FIG. 3b

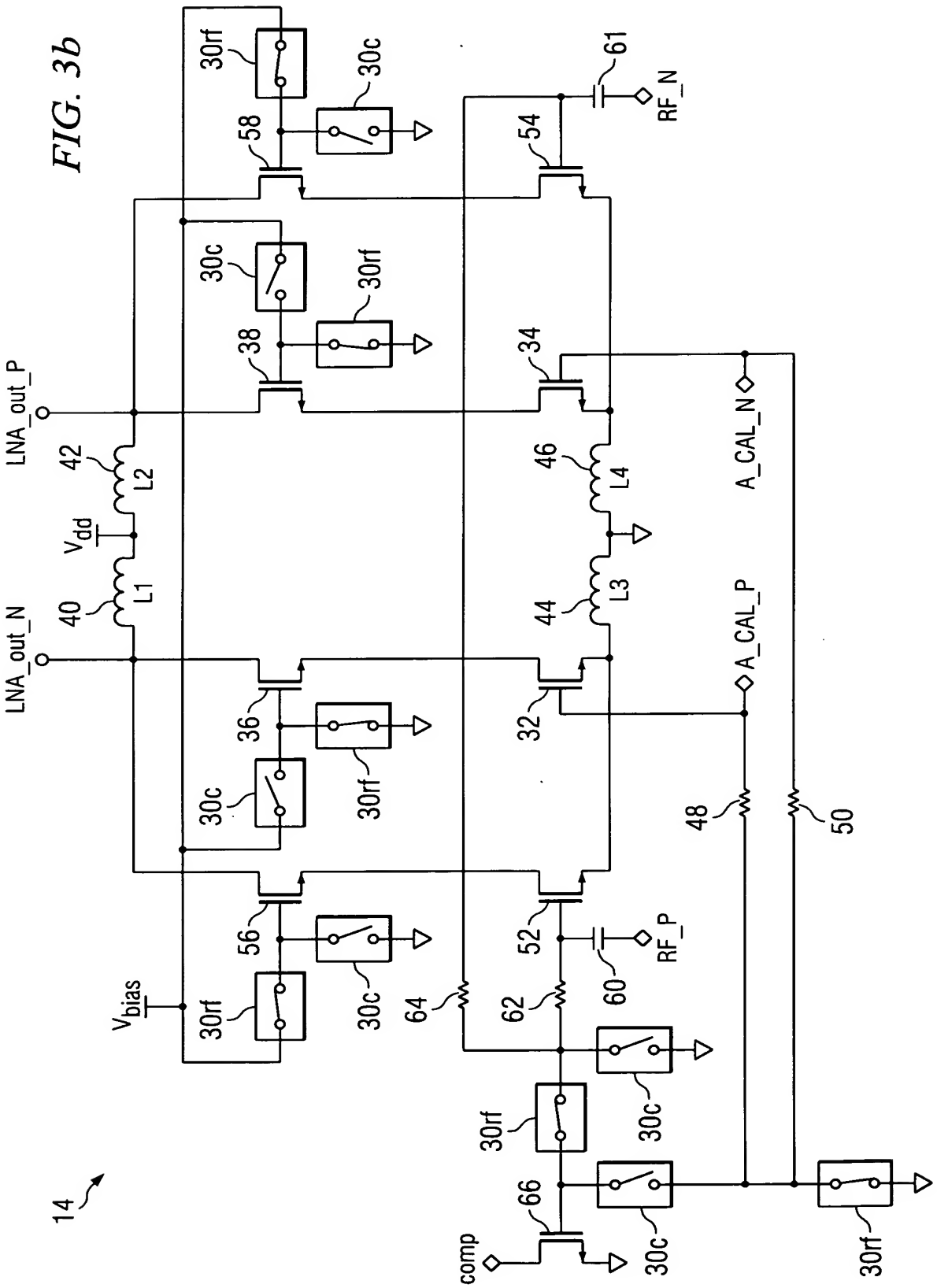
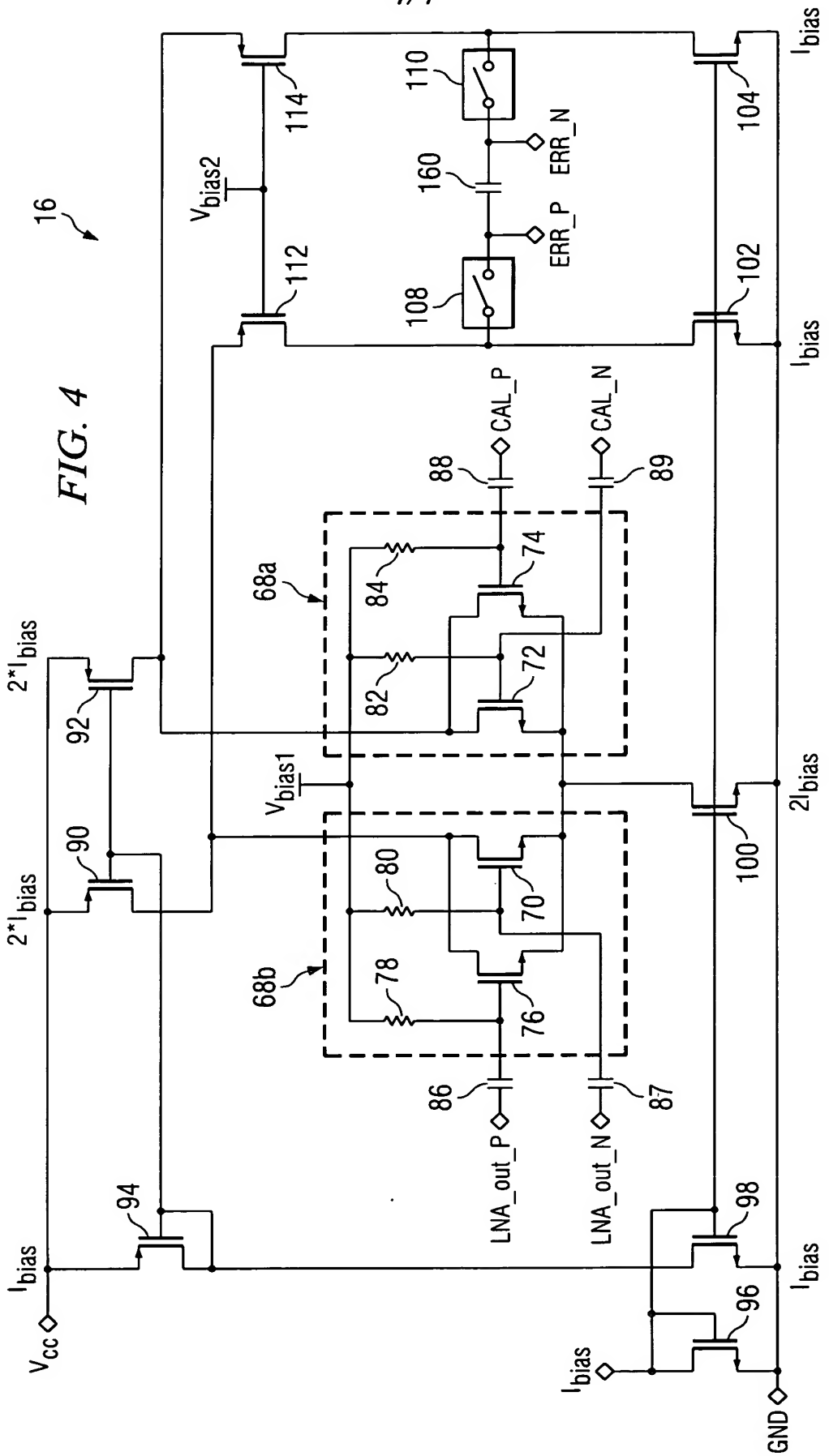

LNA_out_P
LNA_out_N
42
L2
40
L1
V_{dd}
46
L4
44
L3
A_CAL_N
A_CAL_P
48
50
61
RF_N
54
58
34
38
32
36
56
52
60
RF_P
64
62
66
V_{bias}
I_{comp}
30rf
30c
14

FIG. 4


16
V_{bias2}
V_{bias1}
I_{bias}
$2*I_{bias}$
$2I_{bias}$
V_{cc}
GND
CAL_P
CAL_N
ERR_P
ERR_N
LNA_out_P
LNA_out_N
68a
68b
70
72
74
76
78
80
82
84
86
87
88
89
90
92
94
96
98
100
102
104
108
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112
114
160